

CLAIMS

What is claimed is:

Publ 1 1. A configuration management system,
2 comprising:

3 a configuration device configured to perform
4 configuration management functions on objects within
5 said configuration management system; and

6 a display device configured to display a
7 representation of said objects in a Windows 95 Explorer
8 style presentation.

1 2. The configuration management system according
2 to Claim 1, wherein objects outside said configuration
3 management system are checked into said configuration
4 management system by dragging and dropping them into
5 said representation displayed on said display device.

1 3. The configuration management system according
2 to Claim 2, wherein said objects checked into said
3 configuration management system include at least one of
4 a file and a folder.

1 4. The configuration management system according
2 to Claim 1, wherein said objects within said
3 configuration management system are checked out by

4 dragging and dropping them from said representation to
5 another system.

1 5. The configuration management system according
2 to Claim 1, wherein

3 said display device is further configured to
4 provide access to said configuration management
5 functions by allowing a user to invoke at least one of
6 said configuration management functions on at least one
7 of said objects.

1 6. The configuration management system according
2 to Claim 5, wherein said access to said configuration
3 management functions is provided by at least one of a
4 pull down menu selection and a right click menu
5 selection.

1 7. The configuration management system according
2 to Claim 5, wherein:

3 said configuration management functions include at
4 least one of object state changes, object check-in,
5 object check-out, create package, difference of
6 disparate objects, move package, promote package,
7 demote package, snapshot, approve, list version, list
8 difference, remove item, notify, concurrent merge,
9 cross environment merge, interactive merge, execute
10 user defined process (UDP); and

11 said state changes are performed by drag and drop
12 procedures utilizing said representation of said
13 objects.

1 8. The configuration management system according
2 to Claim 5, wherein:

3 objects outside said configuration management
4 system are checked into said configuration management
5 system by,

6 user invocation of a check-in configuration
7 management function on said representation; and

8 user drag and drop of at least one object from
9 another system onto said representation.

1 9. The configuration management system according
2 to Claim 5, wherein:

3 selected objects within said configuration
4 management system are checked out by,

5 user invocation of a check-out configuration
6 management function on said representation; and

7 user drag and drop of the selected objects to an
8 outside system.

1 10. The configuration management system according
2 to Claim 1, further comprising:

3 a properties device configured to display
4 properties of a selected object; and

5 a shortcut device configured to create shortcuts
6 directly to specific contexts;

7 wherein said representation of said objects
8 includes at least one of an icon, a list, and a details
9 display of said objects.

1 11. The configuration management system according
2 to Claim 5, wherein:

3 said representation comprises,
4 a tree view listing of said objects within said
5 configuration management system, and
6 a list view displaying contents and relationships
7 of a selected one of said objects listed in said tree
8 view.

1 12. The configuration management system according
2 to Claim 11, wherein said representation further
3 comprises a status view that displays status of
4 functions executed by the configuration management
5 system.

1 13. The configuration management system according
2 to Claim 11, wherein:

3 said list view displays at least one of versions,
4 forms, and properties associated with a package when
5 said package is selected in said tree view.

1 14. The configuration management system according
2 to Claim 13, wherein:

3 said versions includes at least one of version
4 name, version number, view path, package, status, size,
5 user check in, file date/time, and check in date/time;

6 said forms includes at least one of a list of form
7 names and form properties; and

8 said properties enumerates at least one property
9 of said package.

1 15. The configuration management system according
2 to Claim 1, further comprising:

3 a server machine for executing said configuration
4 controller and producing display information for said
5 representation of said objects within said
6 configuration management system; and

7 a network interface connecting said server machine
8 to a network;

9 wherein said server machine transmits information
10 produced by said configuration controller and said
11 display information over said network for display on a
12 remote computer.

1 16. The configuration management system according
2 to Claim 15, wherein:

3 said network interface is a web interface and said
4 network is one of the Internet and an intranet; and

5 the transmitted information is formatted as an
6 HTML document configured to display said Windows 95
7 Explorer style presentation.

Sub B1
1 17. The configuration management system according
2 to Claim 15, wherein:

3 said network interface is a web interface and said
4 network is one of the Internet and an intranet; and

5 the transmitted information includes one of an
6 Active X component, Visual Java program, Java applet,
7 and PERL program configured to utilize the information
8 produced by said configuration controller in said
9 Windows 95 Explorer style presentation.

1 18. The configuration management system according
2 to Claim 17, wherein said one of an Active X component,
3 Visual Java Program, Java applet and PERL program are
4 further configured to provide access to selected of
5 said configuration management functions.

1 19. The configuration management system according
2 to Claim 18, wherein said selected configuration
3 management functions include at least one of object
4 state changes, object check-in, object check-out,
5 create package, difference of disparate objects, move
6 package, promote package, demote package, snapshot,
7 approve, list version, list difference, remove item,

8 notify, concurrent merge, cross environment verge,
9 interactive merge, execute user defined process (UDP);
10 and

11 said state changes are performed by drag and drop
12 procedures utilizing said representation of said
13 objects.

Sub B2
1 20. The configuration management system according
2 to Claim 15, further comprising:

3 a report generator configured to produce at least
4 one of access reports, version control reports, and
5 package based reports based on at least one selected of
6 said objects; and

7 wherein said network interface is a web interface
8 and said network is one of the Internet and an
9 intranet; and

10 each of said reports generated by said report
11 generator are formatted as HTML documents and sent via
12 said network interface by said server machine for
13 display on said remote computer.

1 21. The configuration management system according
2 to Claim 1, further comprising:

3 a report generator configured to produce at least
4 one of access reports, version control reports and
5 package based reports based on at least one selected of

6 said objects within said configuration management
7 system.

1 22. The configuration management system according
2 to Claim 21, wherein said report generator generates:
3 said access reports when the selected object is
4 one of a user group, object, and environment;
5 said package based reports when the selected
6 object is a package; and
7 said version control reports when the selected
8 object is a package.

1 23. The configuration management system according
2 to Claim 22, wherein said report generator is
3 configured to produce said reports in InfoReport report
4 formats.

1 24. The configuration management system according
2 to Claim 22, wherein:
3 said access reports include information indicating
4 which users and user groups have access to execute
5 specified functions in an environment;
6 said version control reports include a list of
7 items organized by at least one of version, check out
8 parameters, branches, modification by user,
9 modification by environment, and current release; and

10 said package based reports include a list of items
11 organized by at least one of items modified by
12 packages, packages by state, time in state, and
13 packages by form items.

Sub G2
1 25. A method of interacting with a configuration
2 management system, comprising the steps of:
3 managing performance of configuration management
4 functions on objects within said configuration
5 management system; and
6 displaying a representation of said objects in a
7 Windows 95 Explorer style presentation.

1 26. The method according to Claim 25, wherein
2 said step of managing includes the step of:
3 checking objects into said configuration
4 management system, including the substeps of,
5 selecting an object from outside said
6 configuration management system,
7 dragging the selected object to said
8 representation, and
9 dropping the selected object into said
10 representation.

1 27. The method according to Claim 26, wherein
2 said objects checked into said configuration management
3 system comprise at least one of a file and a folder

1 28. The method according to Claim 25, wherein:
2 said step of managing includes the step of:
3 checking objects out of said configuration
4 management system by dragging the objects to be checked
5 out from said configuration management system and
6 dropping them outside said configuration management
7 system.

1 29. The method according to Claim 25, further
2 comprising the step of:
3 configuring said representation to provide access
4 to configuration management functions by allowing a
5 user to invoke said configuration management functions
6 on at least one of said objects displayed.

1 30. The method according to Claim 29, wherein
2 said step of configuring includes the step of:
3 providing at least one of a pull down menu
4 selection and a right click menu selection for at least
5 one of said configuration management functions.

1 31. The method according to Claim 29, wherein:
2 said configuration management functions include at
3 least one of object state changes, object check-in,
4 object check-out, create package, difference of
5 disparate objects, move package, promote package,

6 demote package, snapshot, approve, list version, list
7 difference, remove item, notify, concurrent merge,
8 cross environment merge, interactive merge, execute
9 user defined process (UDP); and
10 said method further comprises the step of,
11 performing said state changes by drag and drop
12 procedures utilizing said representation of said
13 objects.

1 32. The method according to Claim 29, further
2 comprising the step of:

3 checking objects into said configuration
4 management system by,

5 invoking a check-in configuration management
6 function on said representation; and

7 dragging and dropping at least one object from
8 outside said configuration management system onto said
9 representation.

1 33. The method according to Claim 29, further
2 comprising the step of:

3 checking selected objects out of said
4 configuration management system by,

5 invoking a check-out configuration management
6 function on said representation; and

7 dragging and dropping the selected objects to a
8 system outside said configuration management system.

1 34. The method according to Claim 25, further
2 comprising the steps of:
3 displaying properties of a selected object; and
4 creating shortcuts directly to specific contexts;
5 wherein said step of displaying said
6 representation includes the substep of using at least
7 one of an icon, a list, and a details display of said
8 objects in said representation.

1 35. The method according to Claim 29, wherein
2 said step of displaying comprises the steps of:
3 producing a tree view listing of said objects
4 within said configuration management system; and
5 producing a list view displaying contents and
6 relationships of a selected one of said objects listed
7 in said tree view.

1 36. The method according to Claim 35, wherein
2 said step of displaying further comprises the step of
3 producing a status view that displays status of
4 functions executed by the configuration management
5 system.

1 37. The method according to Claim 35, wherein:
2 said step of producing a list view includes the
3 step of displaying at least one of versions, forms, and

4 properties associated with a package when said package
5 is selected in said tree view.

1 38. The method according to Claim 37, wherein:
2 said versions includes at least one of version
3 name, version number, view path, package, status, size,
4 user check in, file date/time, and check in date/time;
5 said forms includes at least one of a list of form
6 names and form properties; and
7 said properties enumerates at least one property
8 of said package.

1 39. The method according to Claim 25, further
2 comprising the steps of:
3 executing said configuration management system on
4 a server machine in order to produce display
5 information for said representation of said objects
6 within said configuration management system;
7 connecting said server machine to a network; and
8 transmitting said display information produced by
9 said configuration management system over said network
10 for display on a remote computer.

1 40. The method according to Claim 39, further
2 comprising the steps of:

3 formatting said display information as an HTML
4 document configured to display said Windows 95 Explorer
5 style presentation; and

wherein said network is one of the Internet and an
intranet.

Sub 133
1 41. The method according to Claim 39, further
2 comprising the step of:

3 formatting said display information as at least
4 one of an Active X component, Visual Java program, Java
5 applet, and PERL program configured to produce said
6 Windows 95 Explorer style presentation; and

wherein said network interface is a web interface
and said network is one of the Internet and an
intranet.

1 42. The method according to Claim 41, wherein
2 said one of an Active X component, Visual Java Program,
3 Java applet and PERL program are further configured to
4 provide access to selected of said configuration
5 management functions.

1 43. The method according to Claim 42, wherein:
2 said selected configuration management functions
3 include at least one of object state changes, object
4 check-in, object check-out, create package, difference
5 of disparate objects, move package, promote package,

6 demote package, snapshot, approve, list version, list
7 difference, remove item, notify, concurrent merge,
8 cross environment verge, interactive merge, execute
9 user defined process (UDP); and

10 said method further comprises the step of:

11 performing said state changes by drag and drop
12 procedures utilizing said representation of said
13 objects.

1 44. The method according to Claim 39, further
2 comprising:

3 generating at least one of access reports, version
4 control reports, and package based reports based on at
5 least one selected of said objects; and

6 formatting said reports generated as HTML
7 documents and sent via said network by said server
8 machine for display on said remote computer;

9 wherein said network interface is a web interface
10 and said network is one of the Internet and an
11 intranet.

1 45. The method according to Claim 25, further
2 comprising the step of:

3 generating at least one of access reports, version
4 control reports and package based reports based on at
5 least one selected of said objects within said
6 configuration management system.

1 46. The method according to Claim 45, wherein
2 said step of generating comprises the steps of:

3 producing said access reports when the selected
4 object is one of a user group, object, and environment;

5 producing said package based reports when the
6 selected object is a package; and

7 producing said version control reports when the
8 selected object is a package.

1 47. The method according to Claim 46, wherein
2 said report generator is configured to produce said
3 reports in InfoReport report formats.

1 48. The method according to Claim 46, wherein:
2 said step of producing said access reports
3 includes the step of indicating which users and user
4 groups have access to execute specified functions in an
5 environment;

6 said step of producing said version control
7 reports includes organizing a list of items by at least
8 one of version, check out parameters, branches,
9 modification by user, modification by environment, and
10 current release; and

11 said step of producing said package based reports
12 includes organizing a list of items by at least one of

13 items modified by packages, packages by state, time in
14 state, and packages by form items.

Sub 63
1 49. A computer readable medium having computer
2 instructions stored thereon that, when loaded into a
3 computer, cause the computer to perform the steps of:
4 managing performance of configuration management
5 functions on objects within a configuration management
6 system; and
7 displaying a representation of said objects in a
8 Windows 95 Explorer style presentation.

1 50. The computer readable medium according to
2 Claim 49 wherein said step of managing includes the
3 step of:
4 checking objects into said configuration
5 management system, including the substeps of,
6 selecting an object from outside said
7 configuration management system,
8 dragging the selected object to said
9 representation, and
10 dropping the selected object into said
11 representation.

1 51. The computer readable medium according to
2 Claim 50, wherein said objects checked into said

3 configuration management system comprise at least one
4 of a file and a folder

1 52. The computer readable medium according to
2 Claim 49, wherein said step of managing includes the
3 step of:

4 checking objects out of said configuration
5 management system by dragging the objects to be checked
6 out from said configuration management system and
7 dropping them outside said configuration management
8 system.

1 53. The computer readable medium according to
2 Claim 49, wherein said instructions stored thereon
3 further cause the computer to perform the step of:

4 configuring said representation to provide access
5 to configuration management functions by allowing a
6 user to invoke said configuration management functions
7 on at least one of said objects displayed.

1 54. The computer readable medium according to
2 Claim 53, wherein said step of configuring includes the
3 step of:

4 providing at least one of a pull down menu
5 selection and a right click menu selection for at least
6 one of said configuration management functions.

1 55. The computer readable medium according to
2 Claim 53, wherein:

3 said configuration management functions include at
4 least one of object state changes, object check-in,
5 object check-out, create package, difference of
6 disparate objects, move package, promote package,
7 demote package, snapshot, approve, list version, list
8 difference, remove item, notify, concurrent merge,
9 cross environment merge, interactive merge, execute
10 user defined process (UDP); and

11 said method further comprises the step of,
12 performing said state changes by drag and drop
13 procedures utilizing said representation of said
14 objects.

1 56. The computer readable medium according to
2 Claim 53, wherein said instructions stored thereon
3 further cause the computer to perform the step of:

4 checking objects into said configuration
5 management system by,

6 invoking a check-in configuration management
7 function on said representation; and

8 dragging and dropping at least one object from
9 outside said configuration management system onto said
10 representation.

1 57. The computer readable medium according to
2 Claim 53, wherein said instructions stored thereon
3 further cause the computer to perform the step of:

4 checking selected objects out of said
5 configuration management system by,

6 invoking a check-out configuration management
7 function on said representation; and

8 dragging and dropping the selected objects to a
9 system outside said configuration management system.

1 58. The computer readable medium according to
2 Claim 49, wherein said instructions stored thereon
3 further cause the computer to perform the steps of:

4 displaying properties of a selected object; and
5 creating shortcuts directly to specific contexts;

6 wherein said step of displaying said
7 representation includes the substep of using at least
8 one of an icon, a list, and a details display of said
9 objects in said representation.

1 59. The computer readable medium according to
2 Claim 53, wherein said step of displaying comprises the
3 steps of:

4 producing a tree view listing of said objects
5 within said configuration management system; and

6 producing a list view displaying contents and
7 relationships of a selected one of said objects listed
8 in said tree view.

1 60. The computer readable medium according to
2 Claim 59, wherein said step of displaying further
3 comprises the step of producing a status view that
4 displays status of functions executed by the
5 configuration management system.

1 61. The computer readable medium according to
2 Claim 59, wherein:

3 said step of producing a list view includes the
4 step of displaying at least one of versions, forms, and
5 properties associated with a package when said package
6 is selected in said tree view.

1 62. The computer readable medium according to
2 Claim 61, wherein:

3 said versions includes at least one of version
4 name, version number, view path, package, status, size,
5 user check in, file date/time, and check in date/time;

6 said forms includes at least one of a list of form
7 names and form properties; and

8 said properties enumerates at least one property
9 of said package.

1 63. The computer readable medium according to
2 Claim 49, wherein said instructions stored thereon
3 further cause the computer to perform the steps of:

4 executing said configuration management system on
5 a server machine in order to produce display
6 information for said representation of said objects
7 within said configuration management system;

8 connecting said server machine to a network; and

9 transmitting said display information produced by
10 said configuration management system over said network
11 for display on a remote computer.

1 64. The computer readable medium according to
2 Claim 63, wherein said instructions stored thereon
3 further cause the computer to perform the steps of:

4 formatting said display information as an HTML
5 document configured to display said Windows 95 Explorer
6 style presentation; and

 wherein said network is one of the Internet and an
intranet.

Sub B4
1 65. The computer readable medium according to
2 Claim 63, wherein said instructions stored thereon
3 further cause the computer to perform the step of:

4 formatting said display information as at least
5 one of an Active X component, Visual Java program, Java

6 applet, and PERL program configured to produce said
7 Windows 95 Explorer style presentation; and
8 wherein said network interface is a web interface
9 and said network is one of the Internet and an
10 intranet.

1 66. The computer readable medium according to
2 Claim 65, wherein said one of an Active X component,
3 Visual Java Program, Java applet and PERL program are
4 further configured to provide access to selected of
5 said configuration management functions.

1 67. The computer readable medium according to
2 Claim 66, wherein:
3 said selected configuration management functions
4 include at least one of object state changes, object
5 check-in, object check-out, create package, difference
6 of disparate objects, move package, promote package,
7 demote package, snapshot, approve, list version, list
8 difference, remove item, notify, concurrent merge,
9 cross environment verge, interactive merge, execute
10 user defined process (UDP); and
11 said instructions stored thereon further cause the
12 computer to perform the step of:
13 performing said state changes by drag and drop
14 procedures utilizing said representation of said
15 objects.

1 68. The computer readable medium according to
2 Claim 63, wherein said instructions stored thereon
3 further cause the computer to perform the steps of:

4 generating at least one of access reports, version
5 control reports, and package based reports based on at
6 least one selected of said objects; and

7 formatting said reports generated as HTML
8 documents and sent via said network by said server
9 machine for display on said remote computer;

10 wherein said network interface is a web interface
11 and said network is one of the Internet and an
12 intranet.

1 69. The computer readable medium according to
2 Claim 49, wherein said instructions stored thereon
3 further cause the computer to perform the step of:

4 generating at least one of access reports, version
5 control reports and package based reports based on at
6 least one selected of said objects within said
7 configuration management system.

1 70. The computer readable medium according to
2 Claim 69, wherein said step of generating comprises the
3 steps of:

4 producing said access reports when the selected
5 object is one of a user group, object, and environment;

6 producing said package based reports when the
7 selected object is a package; and

8 producing said version control reports when the
9 selected object is a package.

1 71. The computer readable medium according to
2 Claim 46, wherein said report generator is configured
3 to produce said reports in InfoReport report formats.

1 72. The computer readable medium according to
2 Claim 70, wherein:

3 said step of producing said access reports
4 includes the step of indicating which users and user
5 groups have access to execute specified functions in an
6 environment;

7 said step of producing said version control
8 reports includes organizing a list of items by at least
9 one of version, check out parameters, branches,
10 modification by user, modification by environment, and
11 current release; and

12 said step of producing said package based reports
13 includes organizing a list of items by at least one of
14 items modified by packages, packages by state, time in
15 state, and packages by form items.

Sub 44
1 73. A configuration management system,
2 comprising:

3 means for performing configuration management
4 functions on objects within said configuration
5 management system; and

6 means for displaying a representation of said
7 objects in a Windows 95 Explorer style presentation.

1 74. The configuration management system according
2 to Claim 73, further comprising:

3 means for checking objects outside said
4 configuration management system into said configuration
5 management system by dragging and dropping them into
6 said representation displayed on said display device.

1 75. The configuration management system according
2 to Claim 73, further comprising:

3 means for checking out objects within said
4 configuration management system by dragging them from
5 said representation to another system.

1 76. The configuration management system according
2 to Claim 73, wherein said means for displaying
3 comprises:

4 means for providing access to said configuration
5 management functions by allowing a user to invoke at
6 least one of said configuration management functions on
7 at least one of said objects.

1 77. The configuration management system according
2 to Claim 76, further comprising:

3 means for dragging and dropping said
4 representation of said objects to invoke selected of
5 said configuration management functions;

6 wherein said configuration management functions
7 include at least one of object state changes, object
8 check-in, object check-out, create package, difference
9 of disparate objects, move package, promote package,
10 demote package, snapshot, approve, list version, list
11 difference, remove item, notify, concurrent merge,
12 cross environment merge, interactive merge, execute
13 user defined process (UDP).

1 78. The configuration management system according
2 to Claim 76, wherein:

3 said means for displaying comprises,

4 means for producing a tree view listing of said
5 objects within said configuration management system,
6 and

7 means for producing a list view displaying
8 contents and relationships of a selected one of said
9 objects listed in said tree view.

1 79. The configuration management system according
2 to Claim 73, further comprising:

3 means for connecting said means for performing
4 configuration management functions to a network;

5 means for transmitting information produced by
6 said means for performing configuration management
7 functions over said network for display on a remote
8 computer.

1 80. The configuration management system according
2 to Claim 79, further comprising:

3 means for formatting the information transmitted
4 as an HTML document configured to display said Windows
5 95 Explorer style presentation; and

6 wherein said network interface is one of the
7 Internet and an intranet.

Pub B5
1 81. The configuration management system according
2 to Claim 79, further comprising:

3 means for formatting the information transmitted
4 as one of an Active X component, Visual Java program,
5 Java applet, and PERL program configured to utilize the
6 information produced by said configuration controller
7 in said Windows 95 Explorer style presentation; and

8 wherein said network interface is a web interface
9 and said network is one of the Internet and an
10 intranet.

1 82. The configuration management system according
2 to Claim 73, further comprising:

3 means for generating at least one of access
4 reports, version control reports and package based
5 reports based on at least one selected of said objects
6 within said configuration management system.

1 83. The configuration management system according
2 to Claim 82, wherein said means for generating
3 comprises:

4 means for producing said access reports when the
5 selected object is one of a user group, object, and
6 environment;

7 means for producing said package based reports
8 when the selected object is a package; and

9 means for producing said version control reports
10 when the selected object is a package.

1 84. The configuration management system according
2 to Claim 1, wherein:

3 said objects within said configuration management
4 system include versions;

5 said configuration management system further
6 comprises,

7 a registration device configured to register an
8 application as associated with a type of version, and

9 a view version device configured to,
10 check out a version from said configuration
11 management system, and
12 execute an application registered as associated
13 with the version checked out.

1 85. The configuration management system according
2 to Claim 84, wherein:

3 said application executed by said view version
4 device reads the version checked out for display and
5 operation in the application; and

6 said view version device is invoked by identifying
7 a representation of the version to be viewed.

1 86. The method according to Claim 25, further
2 comprising the steps of:

3 registering an application as being associated
4 with at least one type of version included in said
5 objects within said configuration management system;
6 and

7 performing a version view by,

8 checking out a selected version from said objects
9 within said configuration management system;

10 executing the application associated with the
11 checked out selected version; and

12 utilizing the checked out selected version in the
13 application executed.

1 87. The computer readable medium according to
2 Claim 49, wherein said computer instructions stored
3 thereon further cause the computer to perform the steps
4 of:

5 registering an application as being associated
6 with at least one type of version included in said
7 objects within said configuration management system;
8 and

9 performing a version view by,
10 checking out a selected version from said objects
11 within said configuration management system;

12 executing the application associated with the
13 checked out selected version; and

14 utilizing the checked out selected version in the
15 application executed.